

WHAT IS CLAIMED IS:

1. An antibody which specifically binds to a TACI receptor comprising amino acids 2 to 166 of SEQ ID NO: 3.

5

2. The antibody of claim 1, wherein the antibody does not bind BCMA receptor.

3. The antibody of claim 1, wherein the antibody is a monoclonal antibody.

4. The monoclonal antibody of claim 3, wherein said monoclonal antibody comprises the 1G10.1.5 antibody secreted by the hybridoma deposited with ATCC as accession number PTA-4297; the 5B6.3.10 antibody secreted by the hybridoma deposited with ATCC as accession number PTA-4298, or the 6D11.3.1 antibody secreted by the hybridoma deposited with ATCC as accession number PTA-4299.

5. A monoclonal antibody which binds to the same epitope as the epitope to which the 1G10.1.5 monoclonal antibody produced by the hybridoma cell line deposited as ATCC accession number PTA-4297 binds; the 5B6.3.10 monoclonal antibody produced by the hybridoma cell line deposited as ATCC accession number PTA-4298 binds; or the 6D11.3.1 monoclonal antibody produced by the hybridoma cell line deposited as ATCC accession number PTA-4299 binds.

6. The hybridoma cell line which produces monoclonal antibody 1G10.1.5 and deposited with ATCC as accession number PTA-4297.

7. The monoclonal antibody 1G10.1.5 secreted by the hybridoma deposited with ATCC as accession number PTA-4297.

8. The hybridoma cell line which produces monoclonal antibody 5B6.3.10 and deposited with ATCC as accession number PTA-4298.

35

9. The monoclonal antibody 5B6.3.10 secreted by the hybridoma deposited with ATCC as accession number PTA-4298.

10. The hybridoma cell line which produces monoclonal antibody 6D11.3.1 and deposited with ATCC as accession number PTA-4299.

5 11. The monoclonal antibody 6D11.3.1 secreted by the hybridoma deposited with ATCC as accession number PTA-4299.

10 12. An isolated anti-TACI receptor monoclonal antibody, comprising an antibody which binds to TACI receptor comprising amino acids 2 to 166 of SEQ ID NO: 3 and competitively inhibits binding of the monoclonal antibody produced by the hybridoma deposited as ATCC PTA-4297 to said TACI receptor.

15 13. An isolated anti-TACI receptor monoclonal antibody, comprising an antibody which binds to TACI receptor comprising amino acids 2 to 166 of SEQ ID NO: 3 and competitively inhibits binding of the monoclonal antibody produced by the hybridoma deposited as ATCC PTA-4298 to said TACI receptor.

20 14. An isolated anti-TACI receptor monoclonal antibody, comprising an antibody which binds to TACI receptor comprising amino acids 2 to 166 of SEQ ID NO: 3 and competitively inhibits binding of the monoclonal antibody produced by the hybridoma deposited as ATCC PTA-4299 to said TACI receptor.

25 15. A chimeric anti-TACI antibody which specifically binds to TACI polypeptide and comprises (a) a sequence derived from the 1G10.1.5 antibody secreted by the hybridoma deposited with ATCC as accession number PTA-4297; (b) a sequence derived from the 5B6.3.10 antibody secreted by the hybridoma deposited with ATCC as accession
30 number PTA-4298; or (c) a sequence derived from the 6D11.3.1 antibody secreted by the hybridoma deposited with ATCC as accession number PTA-4299.

35 16. The anti-TACI antibody of claim 15 which is a humanized antibody.

17. The anti-TACI receptor antibody of claim 1 which is linked to one or more non-proteinaceous polymers selected from the group

consisting of polyethylene glycol, polypropylene glycol, and polyoxyalkylene.

18. The anti-TACI receptor antibody of claim 1 which is linked
5 to a cytotoxic agent or enzyme.

19. The anti-TACI receptor antibody of claim 1 which is linked
to a radioisotope, fluorescent compound or chemiluminescent
compound.
10

20. The anti-TACI receptor antibody of claim 1 which is
glycosylated.

21. The anti-TACI receptor antibody of claim 1 which is
15 unglycosylated.

22. A method of modulating TALL-1 or TACI polypeptide
biological activity in mammalian cells, comprising exposing said
mammalian cells to an effective amount of TACI receptor antibody;
20 wherein said antibody specifically binds to TACI receptor
comprising amino acids 2 to 166 of SEQ ID NO: 3.

23. An antibody that specifically binds to a TACI receptor and
inhibits B-cell proliferation and does not inhibit BLyS binding to
25 TACI receptor.

24. The antibody according to claim 1, wherein the antibody is
a monoclonal antibody.

25. The antibody according to claim 1, wherein the antibody is
30 produced by the hybridoma cell line deposited with ATCC as
7B6.15.11 (Accession No. PTA-5000) on February 11, 2003.

26. The antibody according to claim 24, wherein the
35 monoclonal antibody binds to the same epitope as the epitope to
which an antibody that is produced by the hybridoma cell line
deposited with ATCC as 7B6.15.11 (Accession No. PTA-5000) on
February 11, 2003 binds.

27. A monoclonal antibody which binds to the same epitope as the epitope to which the monoclonal antibody produced by the hybridoma cell line deposited with the ATCC as 7B6.15.11 (Accession No. PTA-5000) on February 11, 2003 binds.

28. A hybridoma cell line which produces monoclonal antibody the 7B6 monoclonal antibody and was deposited with ATCC as 7B6.15.11 (Accession No. PTA-5000).

29. The monoclonal antibody 7B6 produced by the hybridoma deposited with ATCC as accession number PTA-5000.

30. A monoclonal antibody, comprising an antibody which binds to TACI receptor and competitively inhibits binding of the monoclonal antibody produced by the hybridoma deposited as ATCC PTA-5000 to said TACI receptor.

31. A monoclonal antibody which specifically binds to TACI polypeptide and comprises a sequence derived from the variable domain of an antibody produced by the hybridoma deposited with ATCC as accession number PTA-5000.

32. The antibody of claim 31 which is a chimeric antibody.

33. The antibody of claim 31 which is a humanized antibody.

34. The antibody of any one of claims 23, 26, 30 and 31 which is linked to one or more non-proteinaceous polymers selected from the group consisting of polyethylene glycol, polypropylene glycol, and polyoxyalkylene.

35. The antibody of any one of claims 23, 26, 30 and 31 which is linked to a cytotoxic agent or enzyme.

36. The antibody of any one of claims 23, 26, 30 and 31 which is linked to a radioisotope, fluorescent compound or

chemiluminescent compound.

37. The antibody of antibody of any one of claims 23, 26, 30 and 31 which is glycosylated.

5

38. The antibody of any one of claims 23, 26, 30 and 31 which is unglycosylated.

39. A method of modulating TACI polypeptide biological activity in mammalian cells, comprising exposing said mammalian cells to the antibody according to any one of claims 23, 26, 30 and 31.

40. A monoclonal antibody which binds to the same epitope as the epitope to which the antibody produced by the 4C7.2.1 hybridoma cell line deposited as ATCC accession number PTA-4999 binds.

41. The 4C7.2.1 hybridoma cell line deposited with ATCC as accession number PTA-4999.

20

42. The monoclonal antibody secreted by the 4C7.2.1 hybridoma deposited with ATCC as accession number PTA-4999.

43. A chimeric anti-TACI antibody which specifically binds to TACI polypeptide and comprises a sequence derived from the variable domain of the antibody secreted by the 4C7.2.1 hybridoma deposited with ATCC as accession number PTA-4999.

44. The anti-TACI antibody of claim 43 which is a humanized antibody.

30